

# A Primer for IT and Business on Microsoft Power Platform

**Research and Ideas  
for Your Business Case**

## Table of Contents

Power BI.....	<b>3</b>
Power Apps.....	<b>8</b>
Power Automate.....	<b>12</b>
Power Virtual Agents.....	<b>15</b>
Power Pages.....	<b>19</b>

# Microsoft Power BI

Analytics and Dashboards  
for Every Role in Your Company



Power BI is a self-service analytics and reporting platform from Microsoft that helps organizations collate, manage, and analyze data from multiple sources, through a user-friendly interface. It is a collection of interrelated tools and services that form a complete business intelligence ecosystem and is a lifesaver for users struggling with reporting on data from legacy systems.

Power BI connects multiple data sources from excel spreadsheets to complex databases, both cloud-based and on-premises. Power BI pulls this data together and processes it, turning it into coherent, visually immersive, interactive reports and customizable dashboards that can be used to share and collaborate – even on mobile.

There are many BI tools to choose from, but Power BI should be at the top of your list. Why?

- Power BI is the industry leader
- The platform is easy to use
- It democratizes data insights
- You can find answers fast with its industry-leading AI
- It offers unparalleled Excel interoperation
- You can stream analytics in real-time

## Examples of what Power BI can do for you

(See real client use cases at the end of this section)

Power BI allows you to easily aggregate data from disparate sources and construct personalized dashboards for users. It's a way to finally connect all those spreadsheets and databases from around your company and provide users with access to real-time, accurate data.

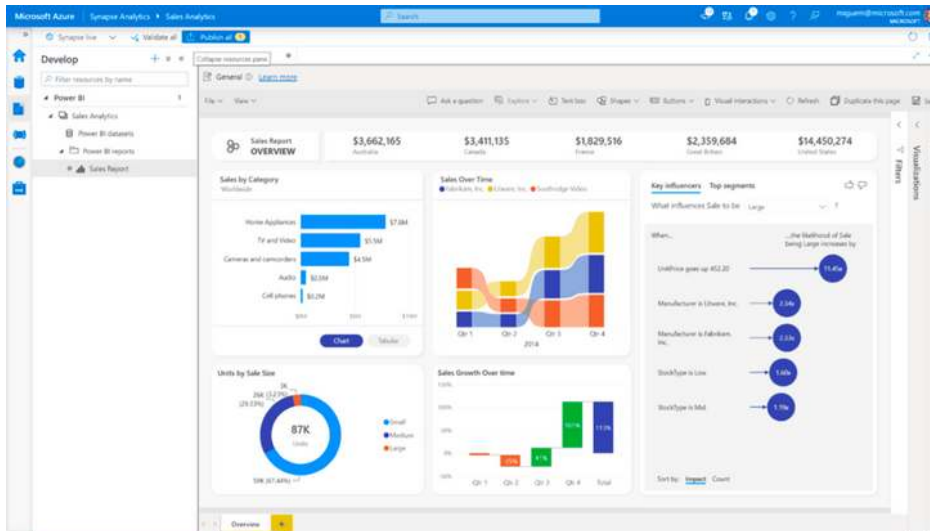
It allows business users with experience in Excel to take full advantage of Power BI's intuitive data analysis capabilities to rapidly discover new insights or to visualize a challenge confronting the business.

Power BI is fantastic for financial projections and delivers new capabilities to the finance team. With powerful analysis tools like "what-if parameters," users can easily create interactive data projections with any number of assumptions.

Insurance and reinsurance companies can reap huge rewards with Power BI when it comes to underwriting and actuarial analysis. Users can manipulate all available data sources to determine more accurate rates, assess if a risk is acceptable, or do a predictive analytics deep dive on claims.

## Six things you should know about Power BI

Make no mistake, Power BI has a very long list of impressive capabilities. A quick Internet search will provide you with ample reasons for you to consider using the tool as well as details on its most important functionality, such as its robust self-service capabilities. If you already have the tool in place, most companies get formal training so their teams can maximize its value and hit the ground running. In the meantime, here are six highlights for you to consider...



Snapshot of Power BI dashboard. Image from Microsoft's Why Power BI - Features & Benefits | Microsoft Power BI

## One: Industry Leader

Microsoft Power BI is one of the top BI platforms and Gartner has recognized it as a Magic Quadrant Leader for 14 consecutive years. It is used to democratize data insights for more than 6 million users and is used in 97% of Fortune 500 companies. There is a massive community of users that share tips, techniques, and answers to tough questions.



## Two: Power BI is easy to use

Power BI has a simple and user-friendly interface that allows non-technical users to build data visualizations quickly and answer complex data questions without the need for programming skills. Businesses can create a data-centric culture and empower their employees to use analytics every day in their reporting, planning and decision-making processes. Power BI is very intuitive to Microsoft users, especially those familiar with Excel.

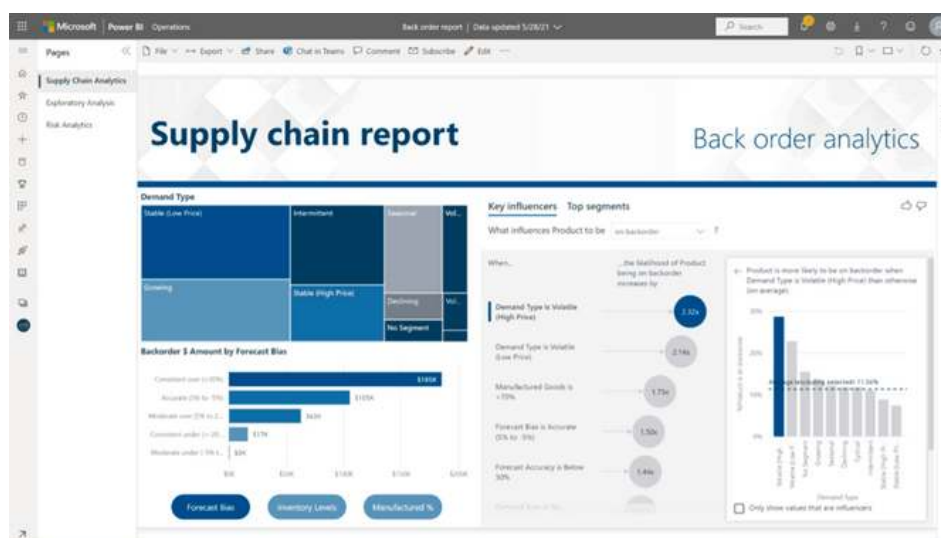
## Three: Democratize data insights

Power BI helps enterprises democratize data by providing an integrated system where users view and access visual data in a matter of minutes. Users can customize, analyze and visualize data with easy-to-use data governance tools and innovative functionality to yield insights in a way that positively impacts the business. Get unparalleled Excel interoperation: You can easily connect Excel queries, data models, and reports to Power BI Dashboard. In just a few simple steps, you can quickly gather, analyze, publish, and share Excel business data.

Power BI transforms unstructured data into visually pleasing charts, reports, and dashboards that are easy to understand for the end-users. To further support data democratization, self-service Power BI capabilities also include centralized data models so users access real-time data.

## Four: Find answers fast with industry-leading AI

Power BI helps non-data scientists prepare data, build machine learning models, and find insights quickly from both structured and unstructured data. Power BI combines natural language search interfaces to enable users to create visualizations and uncover insights using search terms in plain English, without requiring code or syntax. Voice recognition is also supported with Power BI, allowing you to ask for information on-the-go.



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### Five: Get unparalleled Excel interoperation

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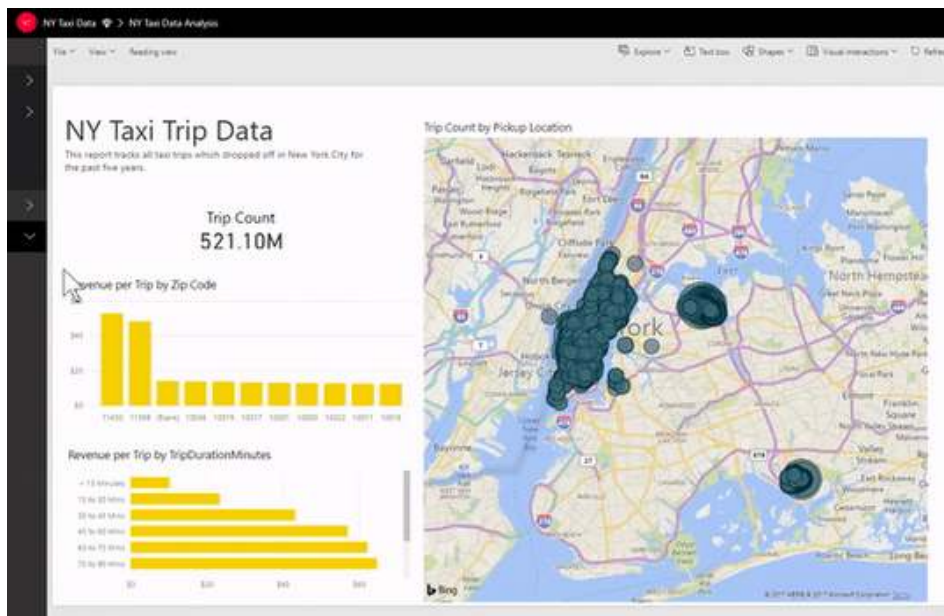


Snapshot of Power Bi dashboard. Image from Microsoft's Why Power BI - Features & Benefits | Microsoft Power BI

### Six: Stream analytics in real-time

Users have access to real-time analytics so you are always ready to make timely decisions. If you need to make forecasts for your business, you can use Power BI machine learning to make it happen. Your decision will be informed by the latest, most accurate data about your organization. These actionable insights can be shared across your organization so everyone is aware of the current situation.

Power BI reports are interactive, allowing users to click on elements to filter and drill down. Image from Microsoft's Power BI Blog.



### **Power BI use cases to consider**

Microsoft's Power Platform is incredibly flexible and can help solve a wide variety of challenges your company may be facing. As one of the three pillars of the platform, Power BI can be used to transform how you access and analyze data from across the company. It puts powerful decision-making tools in the hands of all types of users, including non-technical, expert business professionals.

CCS's Microsoft-certified team develops real-time dashboards and interactive reporting interfaces for companies looking to improve their ability to capture, clean, transform and analyze disparate data sources, most importantly Excel. Here are some Power BI use cases which demonstrate just how powerful the tool can be...

### **Resource and project management**

The first example is from a reinsurance client with employees distributed in different countries performing a variety of different business processes. As the company expanded, they were facing some problems:

- Significant inefficiencies in managing resources
- Lack of control on projects
- Inability to produce accurate/timely information for all reporting requirements

The client's data was stored in multiple data sources with no clear visibility or transparency. To solve this problem, we connected Microsoft Project and Excel with Power BI to aggregate all the information related to the projects and resources. We used Power Query to clean, organize and extract the data from Excel and the Project Power BI template to produce reports.

Power BI not only solved the problems but provided the company with new data that helped the company have more visibility on its day-to-day business processes. After the solution was implemented, the customer was able to:

- Allocate resources efficiently
- Control budgets more effectively
- Access and produce accurate, timely information
- Audit and track all projects around the globe
- Improve overall efficiency and control of projects

### **Claim handling statistics and analysis**

The client was a large insurance company whose managers needed to report on claim handling workloads and trends. Using Power BI, we were able to capture and report on both structured and unstructured data, enabling the creation and tracking of meaningful KPIs for claim handling as well as producing accurate trend reports.

The company was able to develop valuable business insights based on real-time data coming from multiple, disparate data sources and easily produce these reports with a click of a mouse:

- Claim handling statistical reports
- Claim handling trend reports
- Claim settlement activity



# Microsoft Power Apps

Develop Faster, Save Big



Microsoft Power Apps is most likely on your development radar already. Independent research and our own experience demonstrate that almost any company can benefit from using the no-code/low code platform to improve business processes. First, let's look at some convincing research on the tool from Forrester, then look at common scenarios where Power Apps can be used effectively to cut costs and streamline business processes.

## Research shows real savings and increased efficiency

Forrester's report "The Total Economic Impact™ of Power Apps" was commissioned by Microsoft to quantify the benefits of using the application development platform. The report is based on 50+ surveys and interviews and the key findings include:

- **Reduced app development and costs – 74%**
- **Revenue uplift linked to more and faster development efforts – 4.3%**
- **Return on Investment (ROI) – 188%**
- **Payback – Less than 6 months**

The findings are easy to understand and compelling. The numbers alone should pique your interest enough to investigate if Power Apps is a good fit for your company's needs. Additional points from the research include:

- Reduced development backlog for the IT department. Power Apps does not require a skilled, high-code developer. Junior developers and non-technical users can build line-of-business (LOB) apps quickly, such as streamlining a forms process.
- Companies realize significant benefits through Power Apps' easy integration with other MS ecosystem apps, such as Teams and Power BI.
- Mobile app development (which showed massive increases throughout COVID) is not only faster and less expensive, but also more secure due to connections with Azure Active Directory, Microsoft Information Protection, and Power Platform's intrinsic compliance with GDPR.

## Burn after reading. Paper processes are still a productivity killer

Many companies are still asking employees to fill out paper forms and sharing important information by email, which creates real problems:

74%

Reduced application development and costs

4.3%

Revenue uplift - tied to more and faster development

188%

Return on Investment (ROI)

< 6

Payback in Months



- Difficulties managing and reporting on paper forms
- Constant manual data entry errors
- Data loss or misinterpretation
- No centralized, easily accessible location
- No control over access and versioning

### **Quick and robust point solutions**

Almost any paper process can be automated. For example, you can build an HR support app to automate employee onboarding tasks. These small and effective apps help HR with tracking all sorts of activities, such as status of required training, equipment distribution, and setup, and sharing of employee handbooks and policy guides.

### **A lack of standardized processes makes everyone unhappy**

If your company doesn't have standardized processes for common tasks, or perhaps worse, processes that are convoluted and hard to follow, the negative impact is real...

- Long wait times and increased stress relating to a task or process
- Dissatisfied customers or employees
- Data loss or misinterpretation
- Lack of clear direction for users and increased opportunity for errors

Power Apps' flexibility and ease of use allow business users to develop point solutions for problems such as managing and tracking contracts for employees, customers, and partners. An entire process, from beginning to end, can be automated and seamlessly integrated with the security and version control capabilities of MS 365 apps.

### **Use case: return to work procedures, post COVID surges**

COVID created new pressures on almost every aspect of a business, including troublesome compliance mandates for tracking employees leaving or returning to work. Related challenges include:

- No real-time visibility of screening outcomes
- Inability to produce contact tracing reports
- Inability to take immediate action on any positive COVID case

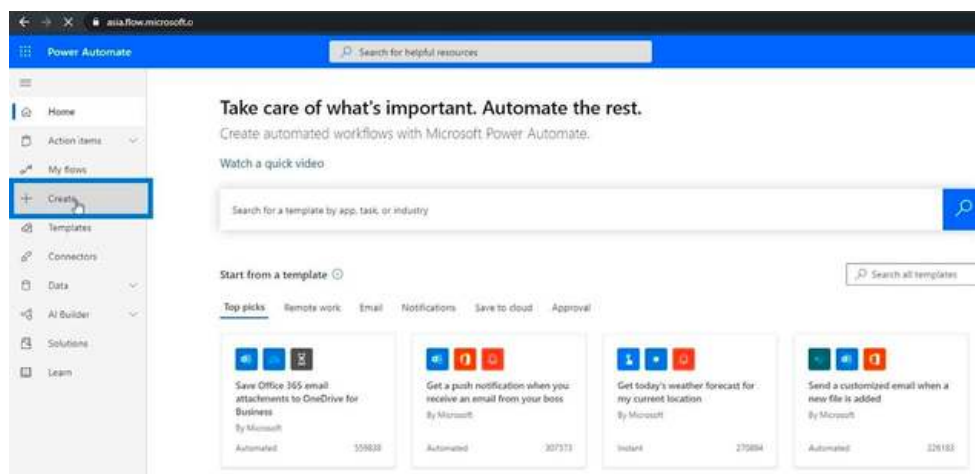
HR and business managers can use Power Apps to capture and track the screening of your employees and support accurate contact tracing. If an employee fails a COVID screening, you can take immediate action by notifying the appropriate manager as well as automatically providing affected employee(s) with important health and safety information.

## Mobile apps and citizen developers

Power Apps puts people in charge of the apps they create. "Citizen developers" on the front lines of your business can build their own tools to meet the challenges and opportunities that they know best—without having to rely on unnecessary executive approvals and expensive professional developers. Most commercially available mobile development platforms support two main types of applications:

Canvas apps start with an intuitive, user-friendly interface that lets employees build apps as if they were creating a digital slide presentation. Starting with a blank canvas, users can create apps with customized user interfaces and a specific look and feel. This type of app gives builders a high level of control over every aspect of the design and layout.

Model-driven apps support complex entity relationships and lead with data to help users quickly add information to a prebuilt layout. This type of app is ideal for helping employees work through complex business processes or visualize data.



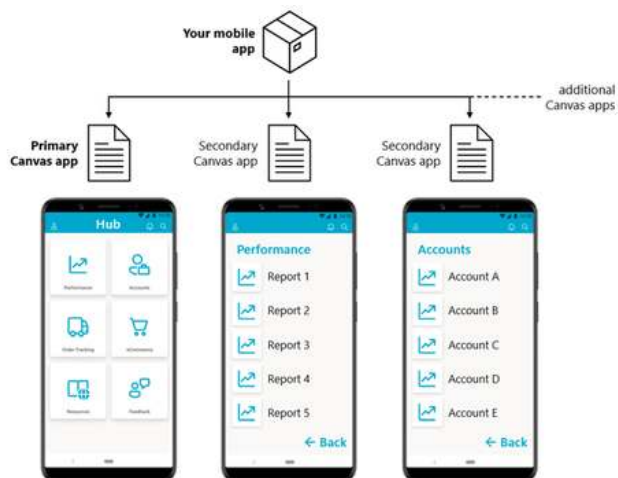
## Low-code mobile app creation

With Power Apps mobile apps (in preview) there's no need to install Xcode or Android Studio, because the mobile app packages are made for you. Start with an existing Canvas app or build a new app from scratch to create your first mobile app with Power Apps. Here's how it works:

- In Power Apps Studio, create a new mobile app project referencing one or more Canvas apps.
- Add mobile app metadata, icons, and branding resources to your project, and kick off a build.
- When the build is complete, go to App Center on your mobile device to install your app.
- You can directly install the mobile app onto your local device for testing or download APK and IPA files for distribution to end-users.

## Embed multiple Canvas apps

Multiple Canvas apps work together as a collection. You don't need separate mobile apps to deliver these natively. Power Apps mobile apps support embedding multiple Canvas apps using a central "hub" app.



# Microsoft Power Automate

Now IT and Business Can Work Together to Automate Processes

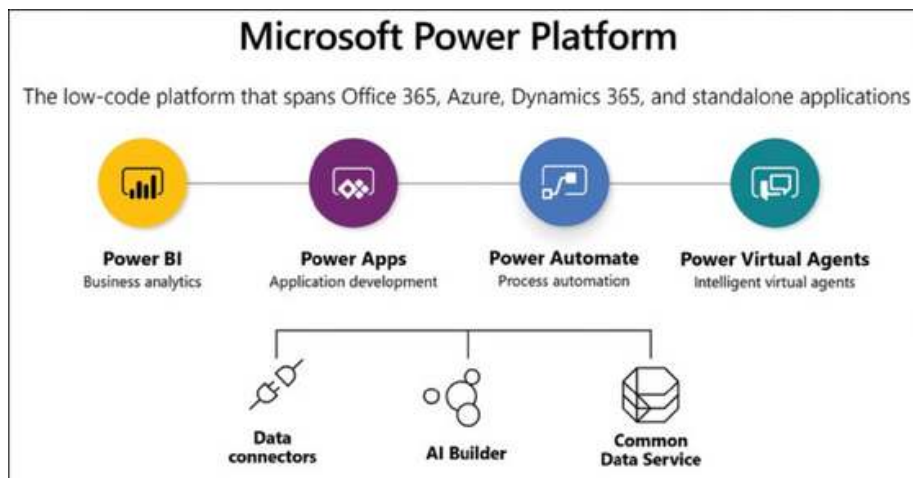


## Why are you waiting to streamline convoluted processes that kill deal flow, customer service performance, HR functions, and financial reporting/payment systems?

With Power Automate you can re-engineer and streamline workflows that used to take months down to just a few hours, removing the pain of:

- Completely unnecessary, repetitious tasks
- Inefficient/unstructured communications with internal and external audiences
- Little or no data integration with critical business applications

**Power Automate Integrates seamlessly with all the other components in the platform.**



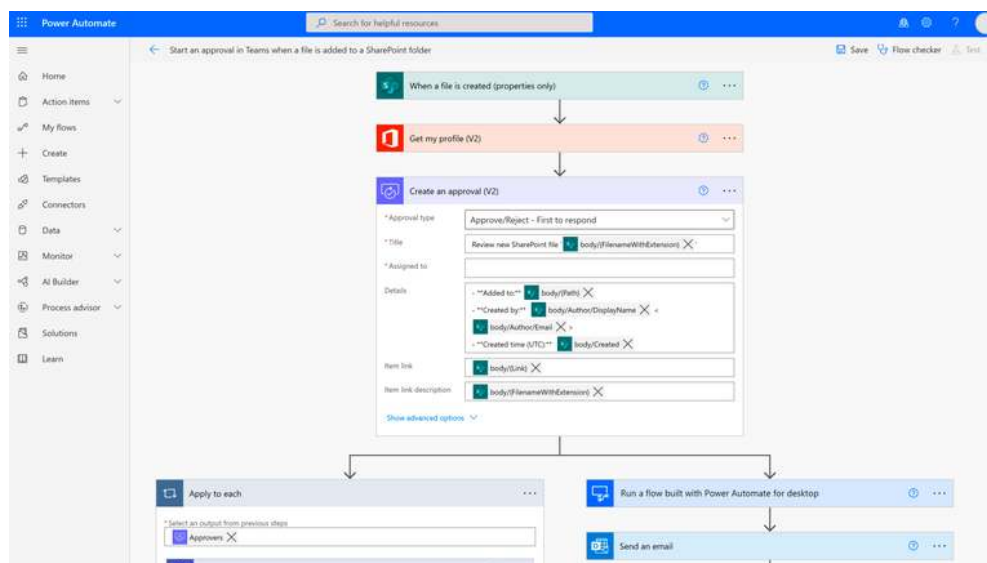
### Templates to Get Started

Power Automate comes with pre-defined automation templates to begin with or you can build one from the scratch. Power Automate supports various types of flows:

- Cloud flow: when you want your automation to be triggered either automatically, instantly or via schedule
- Desktop flow: when you want to automate tasks on your desktop or via the web
- Business process flow: when you need simple and effective productivity improvements

Power Automate can be used in almost any industry, although it reaches peak value for any business that need process improvements to remain competitive. It can be used on its own or in collaboration with Power Apps, Power Bi, and Power Virtual Agents.

### Power Automate's user interface makes it easy to craft new workflows



### Power Platform in Action: (Re)Insurance Underwriting

This example shows how Power Automate can be used with the other elements of the Power Platform to automate and dramatically cut process time for a reinsurance client.

The reinsurer was still handling critical underwriting processes manually, on some of the largest insurance transactions in the world. When a new quote submission arrived, the deal memo was reviewed manually by different stakeholders until the final legal approval, then it was stored in a physical folder for archival purposes. This presented significant challenges and risks:

- Inability to track and audit the deal memos
- Lack of control over the number of quote submissions
- Inefficiencies in managing the underwriting process
- Inability to collaborate on the same quote submission
- Lack of security

With a custom Power App that is fully compatible with PC, macOS, and mobile phones, employees now submit electronic quotes with all the relevant information needed by various decision-makers. This information is recorded in a list, connected directly to Power Automate, and sends notifications to multiple approvers until the final legal stage.

User roles and privilege restrictions allow submissions to be reviewed only by specific employees. Depending on their roles, they can view the status of the submission (draft, rejected, approved, and completed) and other relevant details like the quote itself, loss information, the actuarial analysis, broker interactions, treaty year, and more.

Finally, through Power BI, underwriters can produce detailed analysis charts based on all the statistical information required at every stage in the process. This was a solid win for the reinsurer across the board... connecting every person and all the data involved in a streamlined underwriting process that can be fully audited.

# Power Virtual Agents

AI-Fueled Chatbots  
that Really Work

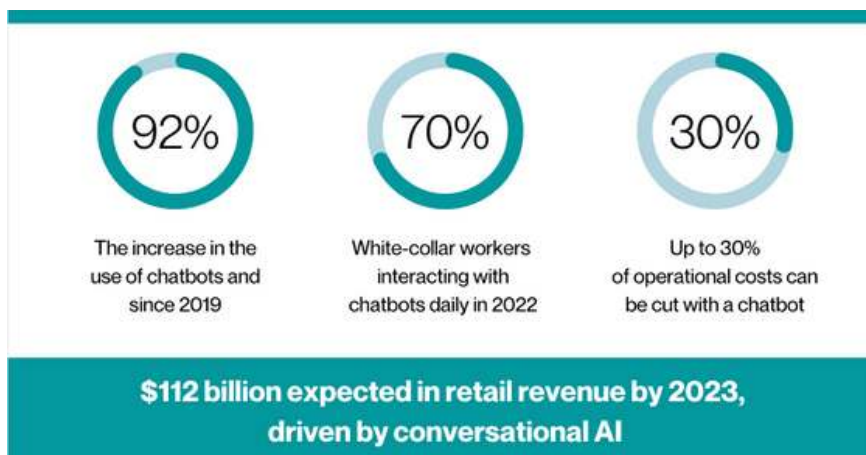


## Intelligent, automated bots instantly deliver the information your audience wants and gets smarter over time.

Chatbots and conversational AI bots have sparked a mini-revolution in customer care and sales automation. When implemented correctly, they have been proven to slash support costs while creating potent new revenue channels.

There are many tools to build and manage chatbots, but Microsoft Power Platform Virtual Agents (PVA) includes something all the others do not – complete, native integration with almost every Microsoft product you can name. This fact creates opportunities for forward-thinking companies to quickly gain meaningful competitive advantages without the need for a slew of new FTEs.

### The Research Results are Impressive



### Virtual Agents Drive Value for Customers AND Employees

The growth of virtual agents has impacted almost every industry. At the highest level, that impact includes proven cost savings, revenue increases and deeper audience engagement. Why should you consider deploying this solution?



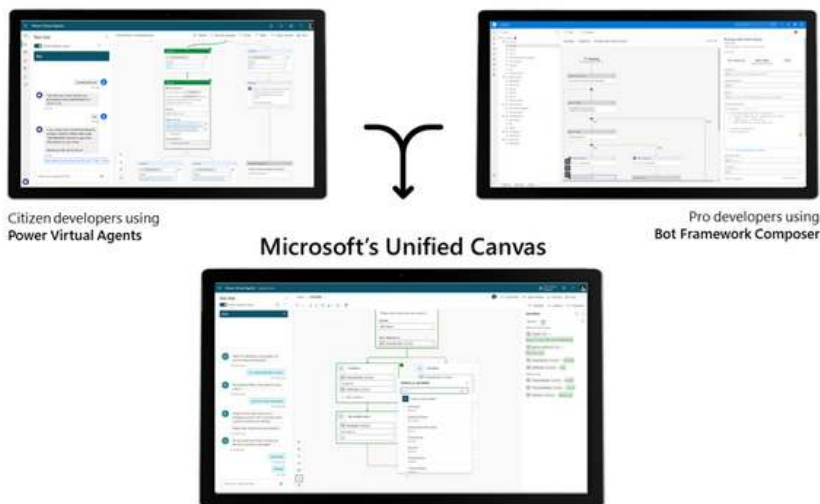
- Increase brand equity and loyalty through dynamic self-service experiences
- Respond instantly to customers 24/7 for the majority of common sales and service requests
- Intelligently route priority sales and service issues
- Increase revenue through integrated product/service recommendations
- Decrease operational expenses for service and support
- Free up employees to focus on higher value, higher need interactions

### MS Power Virtual Agents: Pro-Code + Low-Code = Success

According to Microsoft, “Power Virtual Agents lets you create powerful chatbots that can answer questions posed by your customers, other employees, or visitors to your website or service. These bots can be created easily without the need for data scientists or (professional) developers.”

Power Virtual Agents unifies Microsoft Azure Bot Framework Composer’s pro-code capabilities with the simplicity of its low-code platform—making it easier for professional developers and subject matter experts to collaboratively build a bot in one unified Microsoft bot building studio.

It’s the single, unified conversational AI studio from Microsoft for subject matter experts and developers alike. Citizen developers and professional developers now have a common, seamless workspace to create.



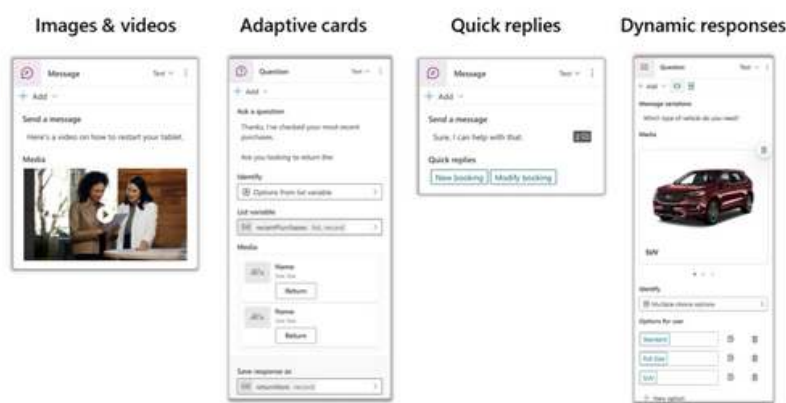
The list of important features and functionality that PVA offers is long. To get a good feel for the scope of the solution, Microsoft has built a very good demo site for you check out: [Power Virtual Agents click-through demo](#)

### Functionality that Really Works and Deepens Engagement

We have all interacted with chatbots, whether we wanted to or not. Some have proven to be excellent tools for sharing detailed information and kicking off sales and service processes for customers and employees. But let’s face it, some have proven to be simply annoying... just one more hurdle to jump over before you can speak to a human being.

That said, Power Virtual Agents does wonders for deepening audience engagement because it includes developer-focused features for complex dialog management to business-focused features for low-code, multi-media responses and experiences. PVA helps you by:

- Making conversations richer with integrated support for rich multi-media responses that include images, videos, adaptive cards, and quick replies
- Making it easy to store, transform, reuse, and work with data
- Supporting advanced conversation flows and logic using variables, loops, and advanced conversational flows
- Enabling your bot to react to events—such as a claim filing, a request for order status, or presenting additional product or service offerings



### Power Virtual Agents App in Microsoft Teams

Power Virtual Agents is available as an app within Microsoft Teams, which means you can easily create your own chatbots that answer questions posed by other employees or team members.

You can add the Power Virtual Agents app from the Microsoft Teams app store and begin to create, author, test, and publish your bot directly into teams, all within the Microsoft Teams interface.

Some of the scenarios where you might want to create a Power Virtual Agents chatbot in Microsoft Teams include:

- Someone in the payroll department creates a chatbot that helps teammates get tax filing forms and information
- The facilities manager creates a chatbot that answers the common questions they are receiving about coming back to work after a pandemic.
- A human resources (HR) employee creates a bot that can answer questions about vacation balance, time off, and benefits.
- A member of the finance department creates a chatbot that helps their teammates in the finance team to fill out expense reports

The Power Virtual Agents app in Microsoft Teams makes it easy to fulfill any scenario, especially those that arise within an organization.

### **The Power Platform Ecosystem is at Your Fingertips**

Power Virtual Agents help you build smarter bots through natural language understanding, entity extraction, artificial intelligence, machine learning, and data-driven insights. Whatever you're trying to accomplish, you can choose from hundreds of connectors within the Microsoft solutions ecosystem, especially Power Platform, to help:

- Create intelligent bots that look up records
- Personalize conversations for better CX
- Transfer client conversations to a live agent at the right time
- Call APIs to access anything you want in the Dataverse
- Solve countless customer service challenges

### **Build It, Buy It, or Both?**

Almost any company can benefit from a smart bot or two. But there are many companies, like insurers and reinsurers in Bermuda, who manage very large financial holdings but typically have a very small staff. Insurance happens to be one of the prime candidates for maximizing the value of Power Virtual Agents because of the process-driven nature of the business.

Once you've made the decision to implement these intelligent bots you have three choices on how to get it done.

- **Build it** – if you have a development team familiar with Power Platform there's no reason you can't grow your own. However, it's a bit like the old adage "just because you can, doesn't mean you should." Two key factors include the development team's backlog and their experience level with anything chat bot related.
- **Buy it** – even if you have the team you may want to hand it off to a trusted vendor. It could be because you know the project will get sidetracked due to other prioritized projects or it's a strategic imperative and you need it done quickly and correctly.
- **Both** – many companies opt to outsource the first real implementation after they've sampled the app through its Teams integrations (or played with small POCs). Once they've gotten a rudimentary understanding of its capabilities, they are in a much better position to direct vendors on scope and cost.

### **In All Three Cases, Training is Critical**

Whichever path you choose, adding Microsoft-Certified Training to the budget for the Professional Developers, but don't sleep on those Citizen Developers! Arming your best business people with the knowledge to build great bots will pay big dividends immediately and far into the future.

## Microsoft Power Pages

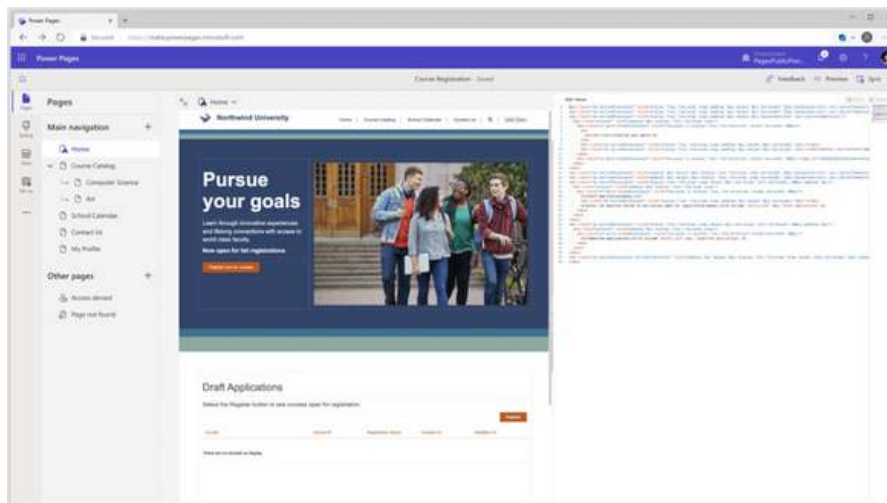
Another website builder? Yes, but this one has legs for MS users and developers



It's hard to get very excited about another website building tool. WYSIWYG site builders have been around since the early 90s! But, to give credit where credit is due, Microsoft thought this one through and developed something that works extremely well for companies already on Microsoft Power Platform.

### A New Angle on Distributed Development?

At the simplest level, Power Pages lets business users craft web pages and sites without asking for development help. There is baked-in security that a business user wouldn't even know about and it uses Bootstrap to ensure that designs are responsive and mobile friendly. (There are currently no controls in place for bad designs by business users, however!)



Power Pages begins to look more interesting when you consider that it's the new, fully-integrated member of the Power Platform family. Which means that developers don't have to build HTML pages for the business user anymore. What they can do is just focus on the technical integration of dynamic data sources or new/existing business app functionality to make the new sites more robust. And more valuable.

It's distributed development with new players in the mix – business users work in the WYSIWIG development tool called Design Studio, adding content that is properly branded and IT works in other Power Platform apps to design and integrate functional elements defined as a need by business. Microsoft is calling it “fusion” teams, which is an accurate description.

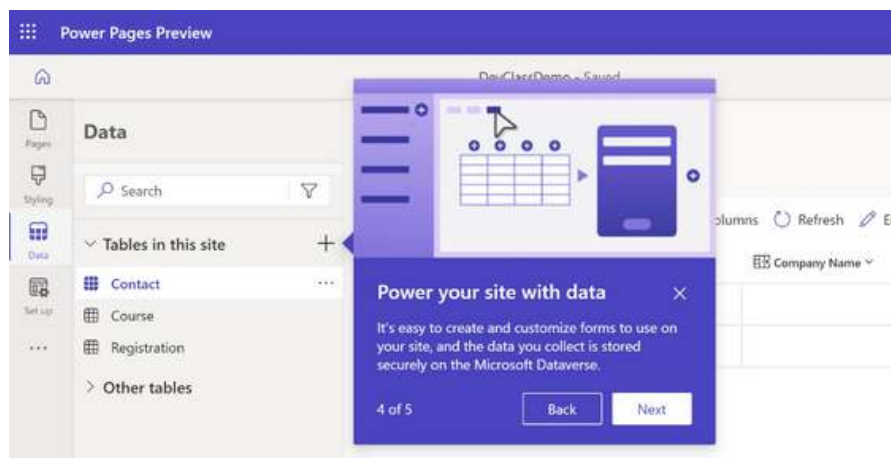
**Business users can develop cool stuff all on their own**

Pages includes the Data workspace, which lets them easily visualize and manage business data for their site with tables, forms, and lists. All the data and changes are stored in Microsoft Dataverse, letting users securely store and manage data that's used by business applications and Power Pages sites.

Business users can create and edit tables for the site and create new (or edit existing) model-driven forms and views. For their portals, these makers can create basic forms, advanced forms, and lists by using Data workspace forms, views and dashboards.

**Easy for professional developers**

Power Platform developers can extend functionality using Visual Studio Code and the Microsoft Power Platform CLI to turn the site into a working app that solves a business challenge. Code components can be added to pages to provide advanced user interfaces and features.



**Sprawl will always be an issue, but this time its apps!**

If you remember when SharePoint was released, almost every company experienced the dreaded “sprawl.” Without any basic governance in place, business users went wild, creating millions of useless intranet pages, tables and lists. The intended value of SharePoint was reduced to a massive, disorganized “shared drive” for the majority of users. It has since come quite a long way, but sprawl remains a huge problem.

Pages has the same potential if not managed properly, except this time around, we are talking about business users building applications on a whim. Imagine a large organization. How many apps are going to be floating around the infrastructure? Too many most likely, which only points to the need for proper training and some controls over app development projects.

**Pages has real promise for business and eases IT's burden. Maybe.**

Pages is based on Power Apps portals, so it's not exactly new. But it's ease of use for business users and seamless integration capability greatly expands its potential value. There will be a learning curve for all stakeholders, so it's likely that IT will have to provide a different kind of support... at least for the early stages.